

The City and State are responsible for pavement markings (ie: striping) installation and maintenance. Traffic Engineers for these agencies are responsible for determining where these markings are placed and in what configuration.

Pavement markings are installed to guide, instruct, and/ or warn motorist of the roadway and surrounding environment. Striping design is governed by the U.S. Department of Transportation publication titled, [Manual on Uniform Traffic Control Devices](#) (MUTCD), State and City standards. These standards strive to provide pavement marking consistency so that drivers can react safely to driving conditions. These standards and policies of the City work toward striping only those streets where it is needed to convey an important message to the driver. This allows us to concentrate our resources on striping where it is needed most.

Typically, local residential streets are not striped. Exception to this can occur when a traffic engineering study indicates that a situation exists that would not normally be expected (ie: severe curves/ hills, school crosswalks, congested areas). In these instances, centerline striping is usually installed. Most commercial/ business streets, and all major roadways are striped.

Council Bluffs uses four types of materials for pavement markings: paint, thermoplastic, cold plastic/ tape and epoxies. These materials all have different installation methods, durability and cost and are therefore used in specific circumstances.

**Paint** - This material is similar to house paint, but, is manufactured using special chemicals to work for painting roads. Paint is installed using a roller, small walk behind paint sprayer, or truck mounted paint machine. The harsh Council Bluffs road environment and

paint quality problems have limited the useful life of paint pavement markings. On local streets paint markings may last for years. However, paint installed on main streets may last only a few months.

**Epoxy** - Epoxy is a two part liquid based system which utilizes the properties of other epoxy materials. This system works quite well for large scale operations such as freeways or other major roadway systems. The installation equipment is very complex and expensive and is not practical for small scale projects. The material dries to a very hard finish and tends to become dull in color after a period of time.

**Thermoplastic** - This plastic material is typically applied in a melted form or in pre-formed stripes or legends. Hot thermoplastic bonds to the pavement surface, and solidifies, as it cools. Thermoplastic markings have met with limited success in Council Bluffs due to weather, snow plows and road conditions.

**Cold Plastic/ Tape** - This material is a cold applied plastic bonded to the pavement with an adhesive. Cold plastic has been used in Council Bluffs with a usable life cycle of 2- 5 years. It is usually installed by hand, during warmer times of the year. Due to its durability, it is our goal to convert most critical pavement marking installations to tape.

We are continuing to test other materials and installation methods to obtain the best striping product available.

Pavement markings can be installed when the pavement is dry and warm. This typically limits our striping efforts to the late spring

through early fall. These weather constraints may result in worn striping come springtime.